



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/066,766

02/06/2002

Nahoko Takano

Q68400

5813

23373

7590

08/26/2005

SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

GANTT, ALAN T

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/066,766	TAKANO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Alan T. Gantt	2684	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 1/6/05 have been fully considered. Applicant primarily argues that the Suzuki reference used to reject independent claims 28, 31, and 34 in that it control signals are between base stations and not between a base station and a mobile station. Also, applicant states that the base station of Suzuki is acting as a repeater also and thus, transmits at least two signals.

With regards to the Suzuki, a new reference replaces Suzuki to meet applicant's claims. Further, subject matter previously indicated as allowable is being withdrawn by the examiner because the style of the independent claims is narrative and does not meet current claim language practice. Without the proper claim language these claims may be interpreted the same as independent claims

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5, 8, 10, 12, 14, 19, and 23 are generally narrative and indefinite, failing to conform to current U.S. practice. Applicant is required to rewrite claims that meet current US practice. Typically, a method or system claim has a preamble that separates from the limitation through the use of "comprising", "steps comprising", etc. As currently written, the claims would appear to have a very extended preamble and a brief limitation. Quite often the preamble will

Art Unit: 2684

carries little if any patentable weight. An examination on merits for these claims or there dependent claims will not be performed in the current Office Action, but will be performed when it is known what applicant is distinctly claiming.

***Allowable Subject Matter***

The indicated allowability of claims 1-27 is withdrawn in view of the arguments presented above.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 28, 29, 31, 32, 34, 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka et al.

Regarding claim 28, Tanaka discloses a multiple beam antenna system of a wireless base station system that, based on whether an uplink signal is present or not, a controller performs control so as to carry out downlink beam forming. Tanaka is a CDMA system and thus, utilizes soft handoff. Tanaka meets the limitations:

a base station that is transmitting only a control signal transmits the control signal to a mobile station only if the control signal to the mobile station only if the signal quality from that mobile station is higher than a target quality. (col. 10, lines 55-63 and col. 12, line 56 to col. 13, line 9)

Regarding claim 29, Tanaka meets the limitation - The communication method claimed in claim 28, wherein the mobile station transmits information relating to its own velocity and the base station halts transmission of the control signal if said velocity exceeds a prescribed value. (col. 12, lines 34-54)

Regarding claim 31, Tanaka discloses a multiple beam antenna system of a wireless base station system that, based on whether an uplink signal is present or not, a controller performs control so as to carry out downlink beam forming. Tanaka is a CDMA system and thus, utilizes soft handoff. Tanaka meets the limitations:

a base station that is transmitting only a control signal transmits the control signal to a mobile station only if the control signal to the mobile station only if the signal quality from that mobile station is higher than a target quality. (col. 10, lines 55-63 and col. 12, line 56 to col. 13, line 9)

Regarding claim 32, Tanaka meets the limitation - The communication system claimed in claim 31, wherein the mobile station transmits information relating to its own velocity and the base station halts transmission of the control signal if said velocity exceeds a prescribed value. (col. 12, lines 34-54)

Regarding claim 34, Tanaka discloses a multiple beam antenna system of a wireless base station system that, based on whether an uplink signal is present or not, a controller performs control so as to carry out downlink beam forming. Tanaka is a CDMA system and thus, utilizes soft handoff. Tanaka meets the limitations:

a base station that is transmitting only a control signal transmits the control signal to a mobile station only if the control signal to the mobile station only if the signal quality from that mobile station is higher than a target quality. (col. 10, lines 55-63 and col. 12, line 56 to col. 13, line 9)

Regarding claim 35, Tanaka meets the limitation - The base station claimed in claim 34, wherein it transmits information to its own velocity and the base station halts transmission of the control signal if said velocity exceeds a prescribed value. (col. 12, lines 34-54)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30, 33, and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al., in view of Wilborn et al.

Regarding claim 30, Tanaka discloses a base station that is transmitting only a control signal and that transmits the control signal to a mobile station only if the signal quality from that mobile station is higher than a target quality as stated above for claim 28, as well as, that the base station halts transmission of the control signal if the mobile station velocity exceeds a prescribed value as stated above for claim 29. Tanaka does not utilize the base station for estimating the velocity of the mobile station on the basis of the fading of a signal from the mobile signal.

Wilborn discloses an apparatus and method for velocity estimation based on fast fading. Wilborn meets the limitation :

The communication method claimed in claim 28, wherein the base station estimates the velocity of the mobile station on the basis of the fading of a signal from the mobile station, and halts transmission of the control signal if said velocity exceeds a prescribed value. (paragraph 0030)

Tanaka and Wilborn are combinable because they share a common endeavor, namely radio telecommunications. At the time of the applicant's invention it would have been obvious

Art Unit: 2684

to modify Tanaka to include means for estimating mobile station speed on the basis of the fading of the signal from the mobile station to allow for operating the system if the mobile station did not contain velocity sensors.

Regarding claim 33, Tanaka discloses a base station that is transmitting only a control signal and that transmits the control signal to a mobile station only if the signal quality from that mobile station is higher than a target quality as stated above for claim 31, as well as, that the base station halts transmission of the control signal if the mobile station velocity exceeds a prescribed value as stated above for claim 32. Tanaka does not utilize the base station for estimating the velocity of the mobile station on the basis of the fading of a signal from the mobile signal.

Wilborn discloses an apparatus and method for velocity estimation based on fast fading. Wilborn meets the limitation :

The communication system claimed in claim 31, wherein the base station estimates the velocity of the mobile station on the basis of the fading of a signal from the mobile station, and halts transmission of the control signal if said velocity exceeds a prescribed value. (paragraph 0030)

Tanaka and Wilborn are combinable because they share a common endeavor, namely radio telecommunications. At the time of the applicant's invention it would have been obvious to modify Tanaka to include means for estimating mobile station speed on the basis of the



fading of the signal from the mobile station to allow for operating the system if the mobile station did not contain velocity sensors.

Regarding claim 36, Tanaka discloses a base station that is transmitting only a control signal and that transmits the control signal to a mobile station only if the signal quality from that mobile station is higher than a target quality as stated above for claim 34, as well as, that the base station halts transmission of the control signal if the mobile station velocity exceeds a prescribed value as stated above for claim 35. Tanaka does not utilize the base station for estimating the velocity of the mobile station on the basis of the fading of a signal from the mobile signal.

Wilborn discloses an apparatus and method for velocity estimation based on fast fading. Wilborn meets the limitation :

The base station claimed in claim 34, wherein it estimates the velocity of the mobile station on the basis of the fading of a signal from the mobile station, and halts transmission of the control signal if said velocity exceeds a prescribed value. (paragraph 0030)

Tanaka and Wilborn are combinable because they share a common endeavor, namely radio telecommunications. At the time of the applicant's invention it would have been obvious to modify Tanaka to include means for estimating mobile station speed on the basis of the fading of the signal from the mobile station to allow for operating the system if the mobile station did not contain velocity sensors.

Art Unit: 2684

*Allowable Subject Matter*

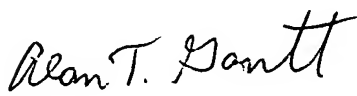
Claims 1-27 are allowed.

Regarding claims 1, 3, 5, 10, 12, 14, 119, 21, and 23, A base station control method that allows the mobile station to select the serving base station and decide whether to utilize a transmission power control signal sent by the base and also make the determination based on its own velocity or estimates of its velocity that also allows another base station to decide whether it will send control signals to the mobile based on the sent velocity information was neither found, suggested, nor made evident by the prior art.


*Conclusion*

Any inquiry concerning this communication from the examiner should be addressed to Alan Gantt at telephone number (571) 272-7878. The examiner can normally be reached between 9:30 AM and 6 PM within the Eastern Time Zone. The group FAX number is (571) 273-8300.

Any inquiry of a general nature or relating to this application should be directed to Supervisory Patent Examiner Nay Maung at telephone number (571) 272-7878.

  
Alan T. Gantt

August 19, 2005

  
NICK CORSARO  
PRIMARY EXAMINER